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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,255	12/18/2001	Rex Eugene Murray	2001U012.US	3766

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UNIVATION TECHNOLOGIES LLC  
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EXAMINER
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PASTERCZYK, JAMES W

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
10/023,255

Applicant(s)  
Murray

Examiner  
J. Pasterczyk

Art Unit  
1755



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 8/19/02, 4/7/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above, claim(s) 19-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 37-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claims 1-41 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 4, 5 6) ☐ Other:

Art Unit: 1755

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-18 and 37-41, drawn to a catalyst precursor compound, classified in class 556, subclass 1 inter alia.
- II. Claims 19-36, drawn to a catalyst and cocatalyst, classified in class 502, subclass 102 inter alia.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as a pigment for a UV-visible light filter, and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

Art Unit: 1755

4. During a telephone conversation with Osborne McKinney, Esq., on 9/16/03, a provisional election was made with traverse to prosecute the invention of group I, claims 1-18 and 37-41. Affirmation of this election must be made by applicant in replying to this Office action. Claims 19-36 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. The abstract of the disclosure is objected to because it is very sparse, lacking any detail about the structures of the catalyst compounds as is found in claim 1. Correction is required. See MPEP § 608.01(b).

6. Claims 1-15 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the metal of the compound being from group 4 and possibly groups 3 and 5-7, does not reasonably provide enablement for the metal being from groups 1, 2, and 8-15. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make or use the invention commensurate in scope with these claims. These claims are so broad as to read on the metal M being hydrogen at low temperature under high pressure, when hydrogen is in a metallic state. Furthermore, it is not at all clear that metals not capable of at least the 3+ oxidation state and trivalence are actually capable of forming this compound as written, since a minimum 3+ oxidation state is required by the chelating ligand covalently bonded to the metal and the presence of at least one L ligand.

Art Unit: 1755

7. Claims 1-18 and 37-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

While applicant may be his or her own lexicographer, a term in a claim may not be given a meaning repugnant to the usual meaning of that term. See *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947). The term "Y" in claims 1, 3, 4, 5, 10 and 38 is used by the claims to mean "nitrogen, oxygen, sulfur or phosphorus," while the accepted meaning is "yttrium." Since yttrium is a group 3 metal within the scope of the definition of M, it is considered important that a different variable name be selected for this variable.

In claims 1-18, the invention is variously termed a "catalyst precursor composition" or a "catalyst precursor". One term should be used consistently.

Further in claim 1, it is not clear what the structure of the second pair of formulas would be from their dimeric nature; is there a metal-metal bond between the monomers, or some other bridging groups? Also, in the first and third structures the subscripts on L should be subscripted. In the second line after the formulas delete the comma after "15". In l. 5 it is not clear what is meant by a "coordination ligand"; is this a neutral Lewis base? In l. 9 insert --the group consisting of-- after "selected from", and when X is oxygen or sulfur, it appears to be overcoordinated. In l. 11 and 13, "non-bulky" and "bulky" are relative terms with no clear limitations on their meanings.

In claim 3, it is not clear that "the atom adjacent to Y" has antecedent basis.

Art Unit: 1755

In claim 4, "dimethyl group" is incomplete; does this mean "dimethyl methylene", or "dimethyl silylene" or some other such term?

In claim 5, l. 1, insert --the group consisting of-- after "selected from", insert --and-- between the last two members of the closed Markush group, and in the last two lines "provided for convenience" may be better phrased --as defined in claim 1--.

In claim 6, l. 1, insert --the group consisting of-- after "selected from", nearly every species recited is actually a genus and thus requires an indefinite article before it, in l. 4 and 5 the ester, alkoxy, and amine groups are not neutral Lewis base ligands as suggested by claim 1, and in l. 5 change "and" to --an-- and delete the second "an" in the second half of the line.

In claim 7, "an anionic ligand" is prolix and thus should be cancelled, in l. 3 "selected from" and "group comprises" makes it unclear if an open or closed Markush group is intended, in the last line it is not clear what a "carboxylates" is, and the limitation on the number of non-hydrogen atoms would probably be better placed after the recitation of the members of the group.

In claim 8, "an anionic ligand" is again prolix, the limitation on the number of non-hydrogen atoms is again better placed after the members of the group, and again the language is not clear as to whether this is an open or closed Markush group.

In claim 11, insert --the group consisting of-- after "selected from".

In claim 13, l. 2, change "be selected from" to --is selected from the group consisting of--.

Claim 15 should apparently depend from claim 13 since "carbon or hydrogen positions" has antecedent basis only if this dependence is corrected.

Art Unit: 1755

In claims 16 and 17 the nitrogen atoms with the double bonds to them appear as if they are tetravalent, which is not possible, and the zirconium atoms appear pentavalent, another impossibility. Also, insert --the group consisting of-- after "selected from". In claim 17 delete the "and" between the first two structures.

In claim 37, l. 1, the "selected from the group consisting of" language does not appear to be appropriate since no particular species or even genres of a closed Markush group are further recited; instead, a generic formula is recited. In the formula subscript the "n" on "L". In text l. 6, delete "selected from" and change "and" to --or--. In l. 8 it is not clear what is meant by "halogen containing groups"; are these halohydrocarbyls, or just halogens themselves? Either should be explicitly recited. In l. 10, "non-bulky" is a relative term of degree as well as appearing to be a broad range followed by the narrower range "straight chain alkyl groups", which is missing the proper closed Markush preamble language, as does the recitation for R' in l. 12-14; in addition, "sterically hindered with respect to which it is bonded" in l. 12 is ambiguous.

Claims 38 and 39 recite a catalyst composition, though claim 37 recites a catalyst precursor. Claim 39 also recites a dimethyl group without specifying what it is a dimethyl of, e.g. is it dimethylmethylene? Dimethylsilylene?

Claim 40, l. 2 recites a reaction product, yet no coreactant is recited. Claim 41 from which this claim depends recites a catalyst precursor, again with a dimethyl group. Claim 40 further suffers from the deficiencies noted above for claim 37.

Art Unit: 1755

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

9. Claims 1-18 and 37-41 are rejected under 35 U.S.C. 102(e) as being anticipated by Matsui et al., USP 6,399,724 (hereafter referred to as Matsui).

Matsui discloses the invention as claimed (col. 2, l. 1-20; col. 15-26; col. 30-46; col. 61-84).

10. Claims 1-18 and 37-41 are rejected under 35 U.S.C. 102(e) as being anticipated by Bansleben et al., USP 6,410,664 (hereafter referred to as Bansleben).

Bansleben discloses the invention as claimed (abstract; col. 3-4).

11. Claims 1-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Johnson et al., USP 6,174,975 (hereafter referred to as Johnson).

Johnson discloses the invention as claimed (col. 1, l. 40, l. 60; col. 2, l. 35).

12. Claims 1-18 and 37-41 are rejected under 35 U.S.C. 102(e) as being anticipated by Murray, USP 6,610,627 (hereafter referred to as Murray) (note provisional date).



Art Unit: 1755

Murray discloses the invention as claimed (col. 5, l. 60; col. 8, l. 35, 55; col. 9-10; col. 11, l. 50, 62; col. 12, l. 40; col. 14, l. 5, 20).

13. Claims 1-18 and 37-41 are rejected under 35 U.S.C. 102(a) as being anticipated by Boussie et al., US Pre-Grant publication 2003/0153697 A1 (hereafter referred to as Boussie).

Boussie discloses the invention as claimed (p. 3, formula I; p. 4, paragraph 0047; p. 5, paragraph 0054; p. 6, paragraphs 0062 and 0066; p. 7, paragraph 0069).

14. Much of the other prior art cited by the examiner is cumulative with that applied.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Pasterczyk whose telephone number is (703) 308-3497. The examiner can normally be reached on M-F from 9 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell, can be reached on (703) 308-3823. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

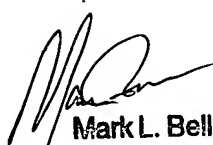
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



J. Pasterczyk

AU 1755

9/26/03



Mark L. Bell  
Supervisory Patent Examiner  
Technology Center 1700